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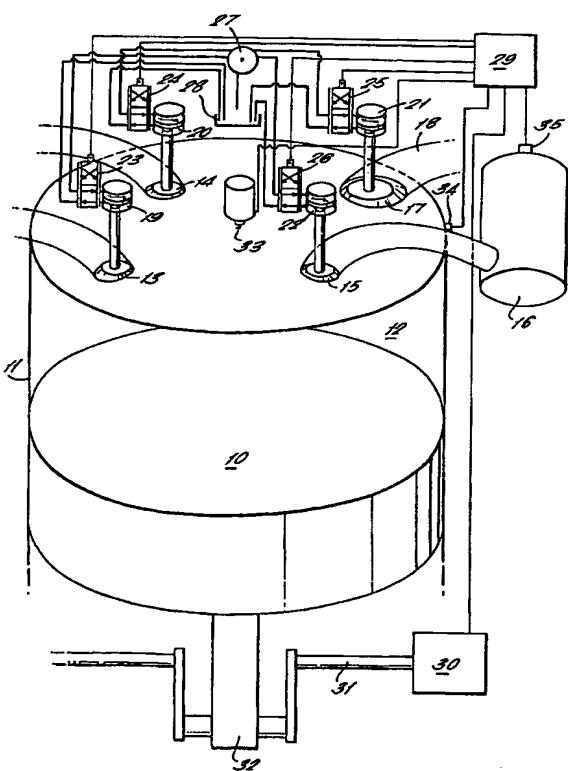
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(54) Title: AN ENGINE WITH A PLURALITY OF OPERATING MODES INCLUDING OPERATION BY COMPRESSED AIR



(57) Abstract: The present invention relates (with reference to Figure 1) to an internal combustion engine in which a combustion chamber (12) can be connected to a reservoir (16) for storing compressed air. Gas flow control valve means (15) controls flow between the chamber (12) and reservoir (16) so that air pressurised in the chamber (12) can be relayed to charge the reservoir (16) and pressurised air can be delivered to the chamber (12) to drive piston (10). The chamber (12) is also used for combustion of fuel. The invention also relates to a valve mechanism for controlling the flow of pressurised air between the chamber (12) and reservoir (16), in which a balancing force is applied to the gas flow control valve (115) to cancel the force on the valve (115) arising from the pressure applied to the back face of the valve (115).



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